

EXPANDABLE IMPLANT DEVICES FOR FILTERING  
BLOOD FLOW FROM ATRIAL APPENDAGES

Abstract of the Disclosure

Implant devices for filtering blood flowing  
5 through the ostium of an atrial appendage have component  
structures one or more of which are expandable. Devices  
with component structures in their unexpanded state have  
a compact size suitable for intra-cutaneous delivery to  
an atrial appendage situs. The expandable component  
10 structures are expanded in situ to deploy the devices. A  
device may have sufficiently short axial length so that  
most or almost all of the device length may fit within  
the ostium region. An expandable component structure in  
the device may include a blood-permeable filter element.  
15 The device may be deployed so that this component  
structure covers the ostium so as to direct the blood  
flow to pass through the filter element. The filter  
elements used in the devices may have hole size  
distributions selected to filter out harmful-size emboli.  
20 The filter elements may be embedded in elastic material  
so that hole-size distributions remain substantially  
unaffected by expansion of the device structures.  
Anchors attached to a component structure engage tissue  
surrounding the device and maintain the devices in  
25 position. The anchors may include inflatable anchors  
which engage interior walls of the atrial appendage.